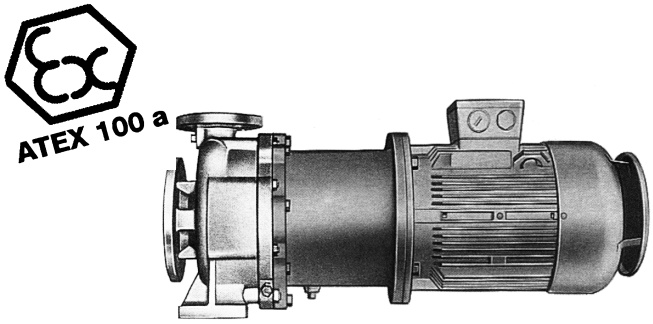
Volute Casing Centrifugal Pumps in Block Design with magnetic drive

ALLMAG® Series CNB-M



Usage

For pumping toxic, volatile, explosive or other fluids harmful to the environment which call for service of hermetically tight pumps without shaft seal. The liquids must not chemically attack the pump / magnetic coupling materials.

Design/Construction/Mounting

Horizontal volute casing centrifugal pump with axial inlet, single stage, single entry in block design with magnetic drive. The volute casing dimensions and the hydraulic coverage corresponds to DIN EN 22858 / ISO 2858.

Horizontal and vertical mounting possible. At vertical mounting double axial bearing is to be planned generally.

The outer magnet rotor and the motor shaft are fixed together. The bearing of the outer rotor with the rows of permanent magnets is supported by the grease-lubricated ball bearings of the drive motor. Separated by the stationary can the inner rotor with analog magnet equipment is inserted into the outer magnetic rotor. The inner rotor, together with the impeller, is arranged on the pump shaft supported in slide bearings.

Torque transmission is contactless via the magnetic field lines between the outer and inner magnetic rotors.

The inner rotor is supported in exceptional solid silicone carbide slide bearings (axial-radial bearing) which hydrodynamically absorb all hydraulic forces and shocks within the entire characteristics range.

Performance data at 50 Hz

Q	up to 300 m^3/h	p_d	up to 25 bar ① ②
H	up to 145 m	DN_d	from 25 to 100 mm
t 0	up to 250 °C ③ ④		

Nominal output of magnetic drive:
P up to 48 KW at 1450 1/min
P up to 96 KW at 2900 1/min

① Please take notice of the pressure/temperature limits in dependence of the material.

② Inlet pressure plus maximum delivery head (= 0-flow) must not exceed the stated value.

③ Special low-temperature version on request.

④ Maximum temperature at closed lantern and vertical mounting of the pump: 150 °C.

The mentioned performance data are only to be viewed as a product / performance overview. The exact operating limits are specified in the quotation and / or in the order acknowledgment.

Recommended Minimum

For actual flow rates, please see hydraulic coverage and / or individual hydraulic curves. As a protection against overheating when operating at low flow rates, a minimum flow rate is to be maintained according to the following formula:

$$Q_{min.} = 0.3 \times Q_{\eta\ opt}$$

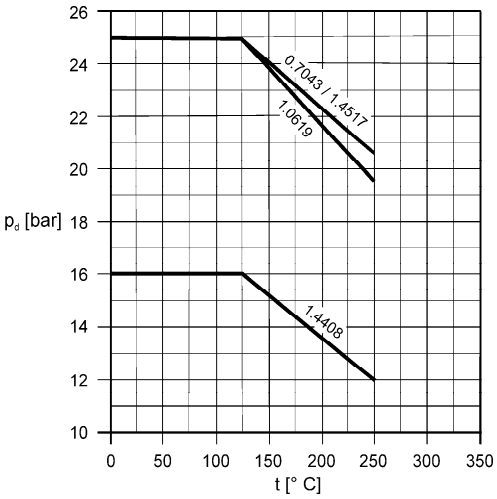
Flanges

Flange dimensions according to DIN EN 1092-1 PN 16 / PN 25 and DIN EN 1092-2 PN 25.
Other flange dimensions are possible.

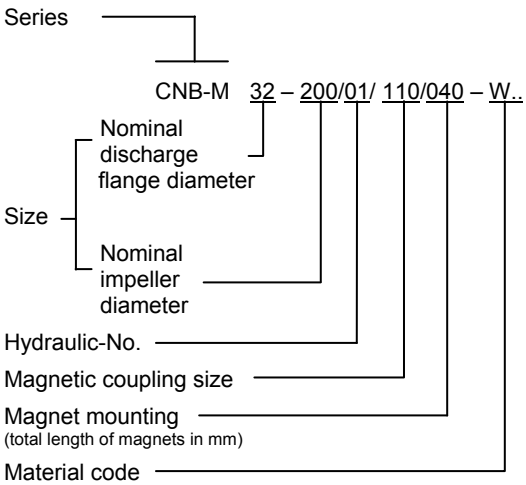
Drive

By serial three-phase squirrel-cage induction motor. Up to 2.2 kW, 230/400 V, from 3 kW 400/690 V, IP55.

Pressure and temperature limits as influenced by the casing material.



Abbreviation



Materials

Denomination	Material design			
	W 20	W 22	W 23	W 26
Volute casing	1.4408	EN-JS 1025	1.0619	1.4517
Impeller	1.4408	EN-JL 1030	EN-JL 1030	1.4408
Casing cover	1.4408	EN-JS 1025	1.0619	1.4517
Pump shaft	1.4571	1.4021	1.4021	1.4571
Driving shaft	1.7139			
Motor bracket	steel			
Can	2.4610/1.4571			
Rotor	1.4571/steel			

Other materials upon request.

Bearings
Sleeve bearing, conveyance fluid lubrication.

Dismantling the insert unit
By back pull-out design of the pump, the insert unit can be dismounted to the motor side. The volute casing remains at the base plate and in the piping.

Dismounting of motor and drive unit can take place without tension release of system and draining.

Explosion protection
The pump fulfils the requirements according to EC Explosion Protection Directive 2014/34/EU (ATEX 100a) for equipment and equipment group II, category 2 G. Categorisation into temperature classes according to EN 13463-1 depends on the temperature of the pumped medium. The max. permissible temperature of the pumped medium for the respective temperature classes are shown in the below table:

Danger classification	Temperature classification according to EN 13463-1	Maximum fluid temperature
	T4	97 °C
II 2G/ EEx c/b	T3	150 °C
II 3G/ EEX c	T2	150 °C
	T1	150 °C

Fire protection type b = monitoring of ignition sources
Fire protection type c = safe design

The temperatures mentioned above correlate with a maximum speed of 2900 1/min, a maximum ambient temperature of 40°C and the can material Hasteloy.

Can materials with abnormal physical characteristics only may be used after consultation with Allweiler.

Note: In case of the operation of a category 2 pump, the unacceptable heating of the pump surfaces caused by a possible operational fault must be prevented by a control mechanism. In case of an operation with know parameters (Q, H, ν, ρ = const.), a pump performance controller can be supplied with the pump to detect any operational faults.
Units: Only drives may be used, which correspond to the requirements according to EC Explosion Protection Directive 94/9EG.

Product certification supported by:
TÜV Product Service GmbH, Ridler Str. 65, D-80339 München ID: 0123.

Series CNB-M

Wear-resistant

➔ Flush flow by SiC-sleeve bearings

✚ Tolerance against solid particles

✚ Security against leakages and damages of the can

Universal

➔ External flush flow

✚ Suitable for stagnant and sticky fluid

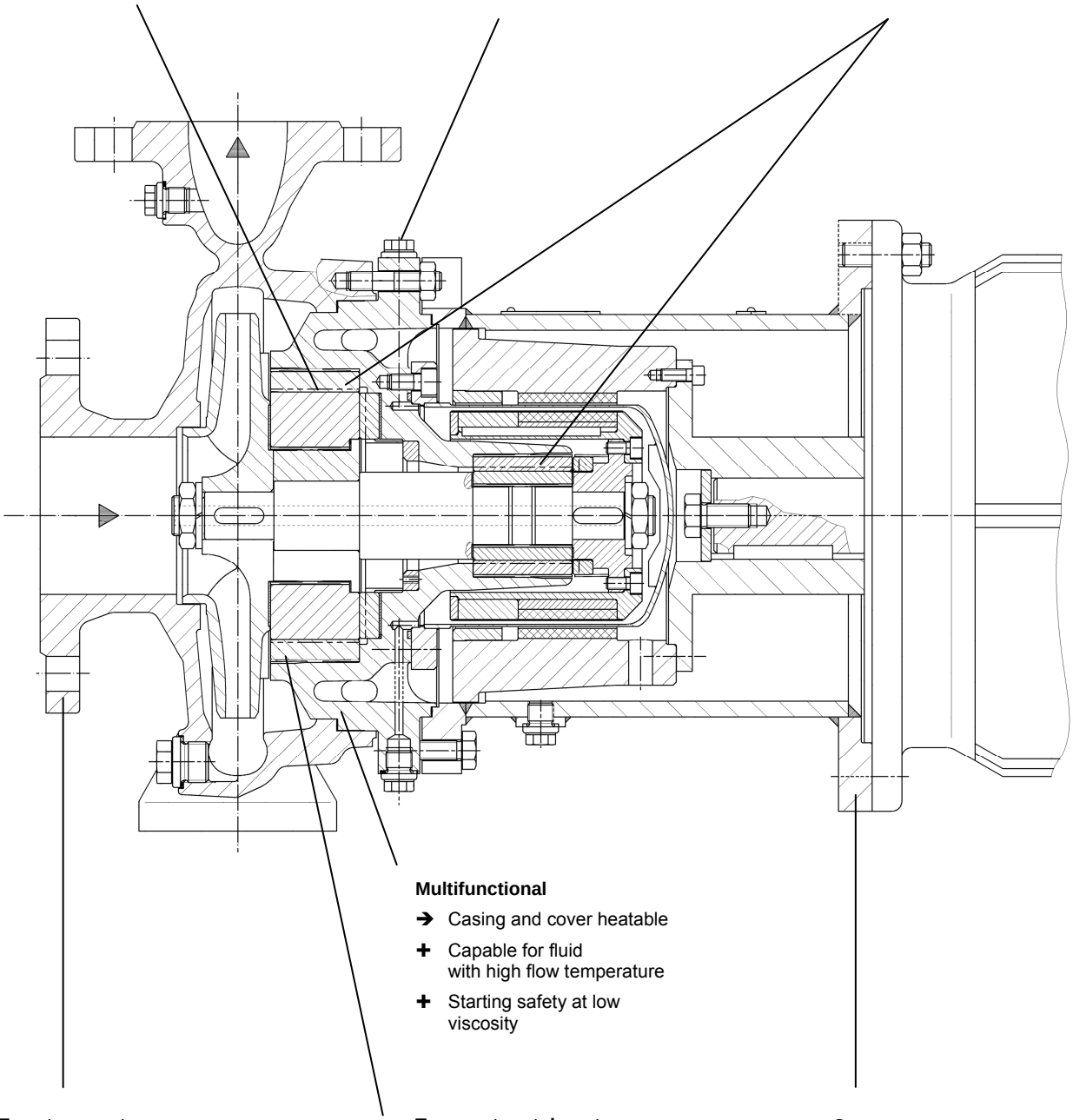
✚ Suited for temperature sensitive fluid

Reliable

➔ Generously dimensioned axial und radial bearing

✚ Optimum counteract of all forces in the bearing

✚ Exceptionally fail safe



Multifunctional

➔ Casing and cover heatable

✚ Capable for fluid with high flow temperature

✚ Starting safety at low viscosity

Easy to mount

➔ Back pull-out design

✚ When dismounting the pump the volute casing can remain in the piping

✚ Dismounting of motor and drive unit can take place without tension release of system and draining

Temperature tolerant

➔ Bearings mounted in flexible elements

✚ Large temperature range also at high quality steel casing

✚ Failure-free discharge at high temperature difference

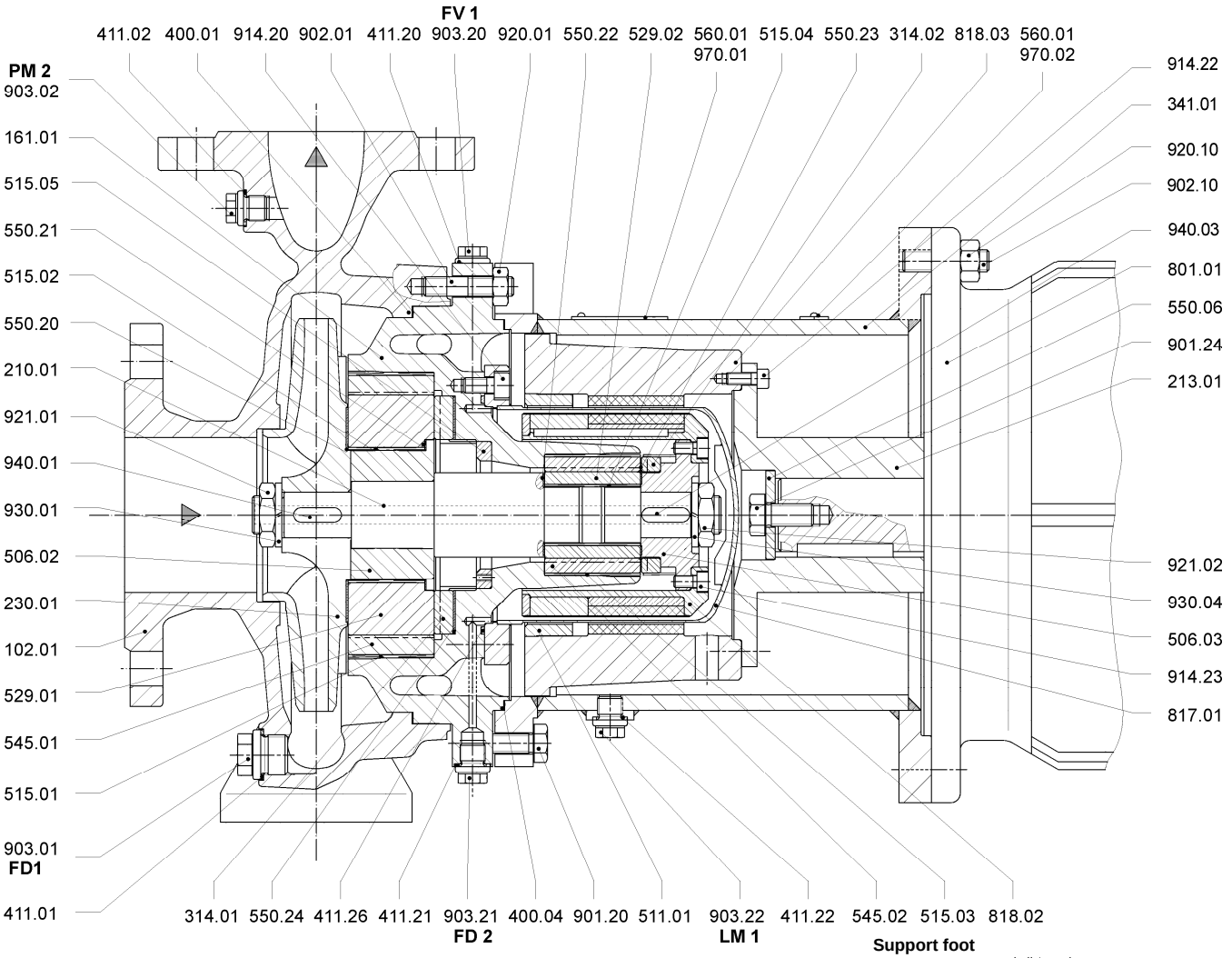
Compact

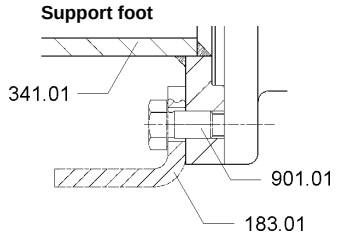
➔ Block design

✚ No coupling alignment required

✚ Space saving

Sectional drawing
Sizes at 1. bearing bracket





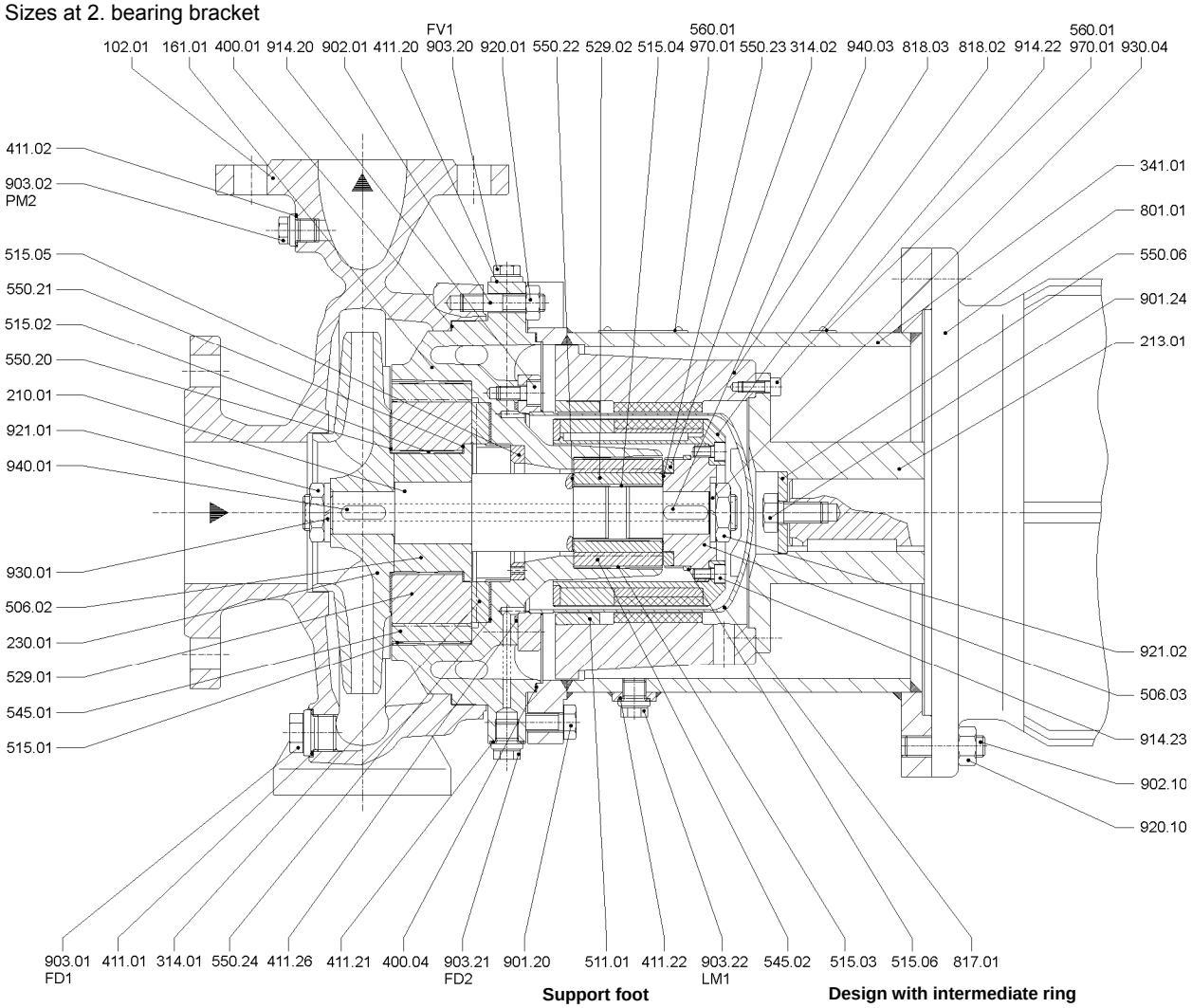
Denomination	Part No.
Volute casing	102.01
Casing cover	161.01
Support foot	183.01
Pump shaft	210.01
Drive shaft	213.01
Impeller	230.01
Axial bearing	314.01
Axial bearing	314.02
Motor stool	341.01
Gasket	400.01
Gasket	400.04
Gasket	400.21
Seal ring	411.01
Seal ring	411.02
Seal ring	411.20
Seal ring	411.22
Seal ring	411.26
Retaining ring	506.02
Retaining ring	506.03
Centerring ring	511.01
Tension ring	515.01
Tension ring	515.02

Denomination	Part No.
Tension ring	515.03
Tension ring	515.04
Tension ring	515.05
Bearing sleeve	529.01
Bearing sleeve	529.02
Bearing bush	545.01
Bearing bush	545.02
Disc	550.06
Disc	550.20
Disc	550.21
Disc	550.22
Disc	550.23
Disc	550.24
Grooved drive stud	560.01
Flange motor	801.01
Spacer can	817.01
Rotor	818.02
Rotor	818.03
Hexagon head screw	901.01
Hexagon head screw	901.20
Hexagon head screw	901.24
Stud	902.01

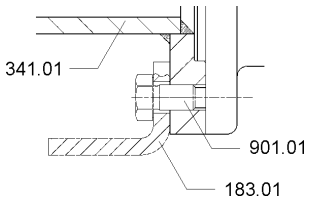
Denomination	Part No.
Stud	902.10
Screw plug	903.01
Screw plug	903.02
Screw plug	903.20
Screw plug	903.21
Screw plug	903.22
Hexagon socket screw	914.20
Hexagon socket screw	914.22
Hexagon socket screw	914.23
Hexagonal nut	920.01
Hexagonal nut	920.10
Hexagonal nut	921.01
Hexagonal nut	921.02
Spring ring	930.01
Spring ring	930.04
Key	940.01
Key	940.03
Rating plate	970.01
Rotation arrow	970.02

Sectional drawing

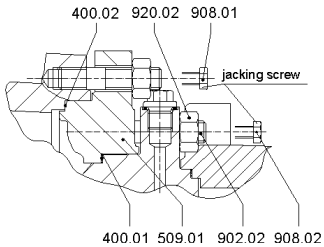
Sizes at 2. bearing bracket



Support foot



Design with intermediate ring

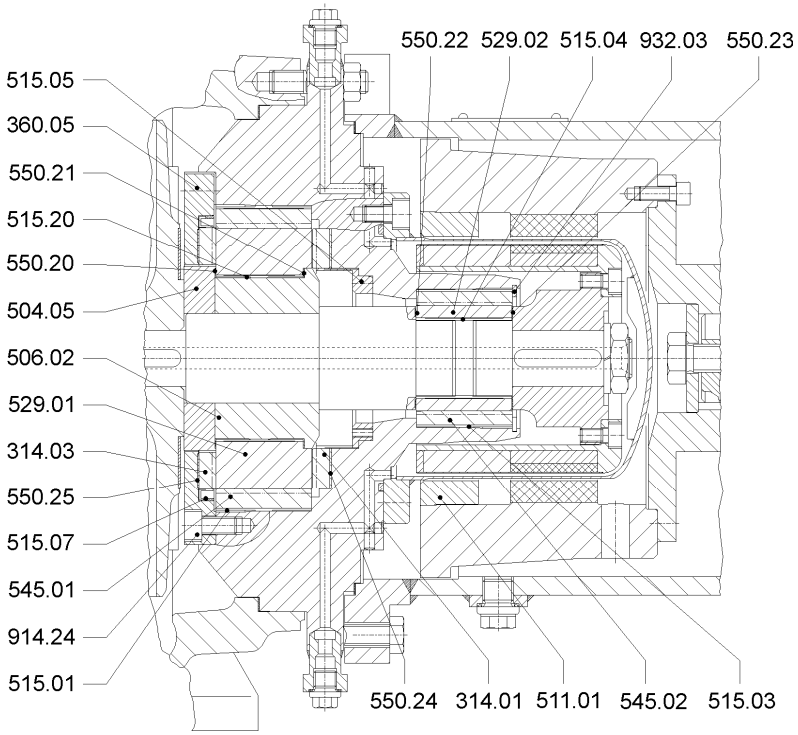


Denomination	Part No.
Volute casing	102.01
Casing cover	161.01
Pump shaft	210.01
Drive shaft	213.01
Impeller	230.01
Axial bearing	314.01
Axial bearing	314.02
Motor stool	341.01
Gasket	400.01
Gasket	400.02
Gasket	400.04
Seal ring	411.01
Seal ring	411.02
Seal ring	411.20
Seal ring	411.21
Seal ring	411.22
Seal ring	411.26
Retaining ring	506.02
Retaining ring	506.03
Intermediate ring	509.03
Centerring ring	511.01
Tension ring	515.01
Tension ring	515.02

Denomination	Part No.
Tension ring	515.03
Tension ring	515.04
Tension ring	515.05
Tension ring	515.06
Bearing sleeve	529.01
Bearing sleeve	529.02
Bearing bush	545.01
Bearing bush	545.02
Disc	550.06
Disc	550.20
Disc	550.21
Disc	550.22
Disc	550.23
Disc	550.24
Grooved drive stud	560.01
Flange motor	801.01
Spacer can	817.01
Rotor	818.02
Rotor	818.03
Hexagon head screw	901.20
Hexagon head screw	901.24
Stud	902.01
Stud	902.02

Denomination	Part No.
Stud	902.10
Screw plug	903.01
Screw plug	903.02
Screw plug	903.20
Screw plug	903.21
Screw plug	903.22
Jacking screw	908.01
Jacking screw	908.02
Hexagon socket screw	914.20
Hexagon socket screw	914.22
Hexagon socket screw	914.23
Hexagonal nut	920.01
Hexagonal nut	920.02
Hexagonal nut	920.10
Hexagonal nut	921.01
Hexagonal nut	921.02
Spring washer	930.01
Spring washer	930.04
Key	940.01
Key	940.03
Rating plate	970.01
Rotation arrow	970.02

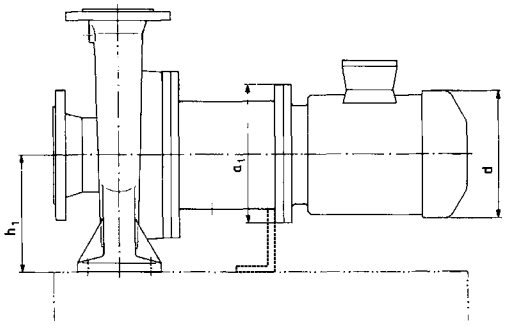
Sectional drawing, Series CNB-M double axial bearing



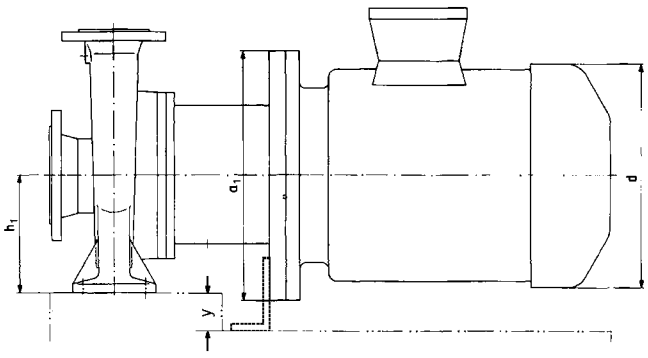
Denomination	Part No.
Axial bearing	314.01
Axial bearing	314.03
Bearing cover	360.05
Spacer ring	504.05
Retaining ring	506.02
centerring ring	511.01
Tension ring	515.01
Tension ring	515.02
Tension ring	515.03
Tension ring	515.04
Tension ring	515.05
Tension ring	515.07
Bearing sleeve	529.01
Bearing sleeve	529.02
Bearing bush	545.01
Bearing bush	545.02
Disc	550.20
Disc	550.21
Disc	550.22
Disc	550.23
Disc	550.24
Disc	550.25
Hexagon socket screw	914.24
Circlip	932.03

Base plate or foundation design

$h1 > \frac{a1}{2}$ or $\frac{d}{2}$	Base plate or foundation design without support foot	$h1 \leq \frac{a1}{2}$ or $\frac{d}{2}$
y = 0	with support foot	y > 0



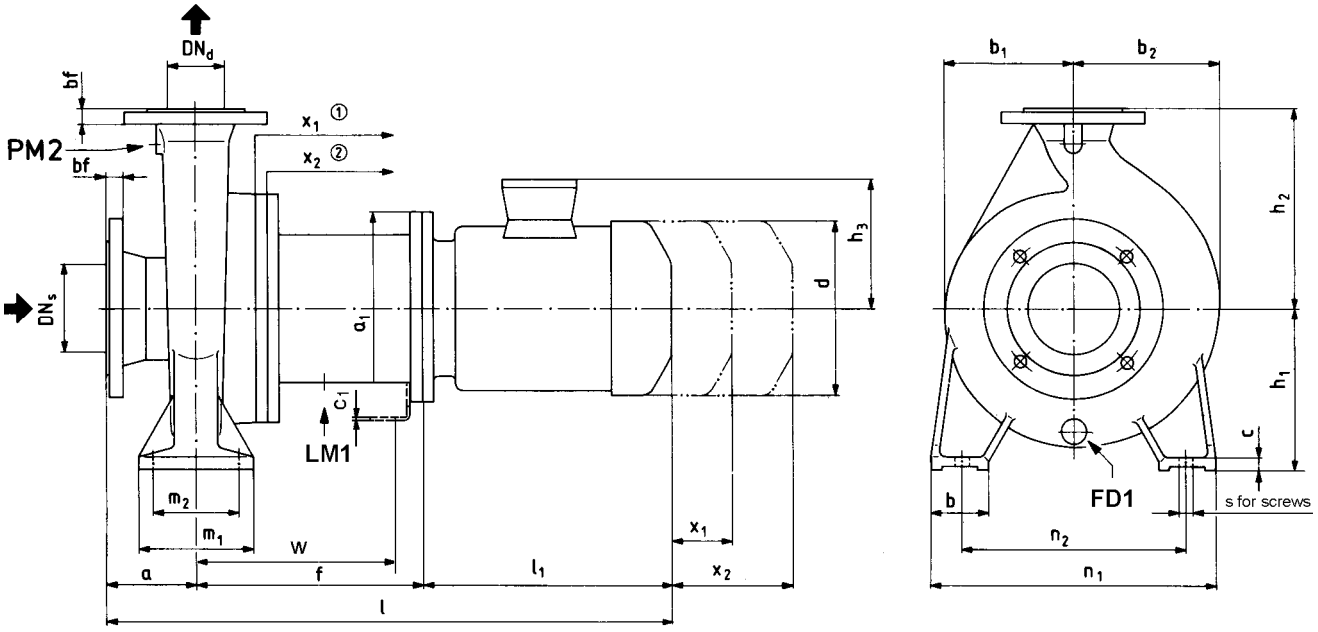
marking in table ●



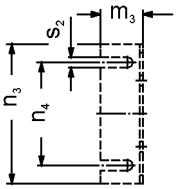
marking in table ×

Unit dimensions

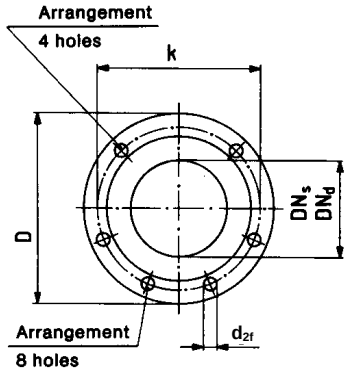
Sizes at 1. and 2. bearing bracket



Connections	Size	Denomination
FD1	G 1/2	Pumped fluid-draining
FD2	G 1/4	Pumped fluid-draining
PM2	G 1/4	Pressure measuring
FV1	G 1/4	Pumped fluid-venting
LM1	G 1/4	Leakage monitoring



Flanges and auxiliary connections



Flanges acc.to DIN EN 1092-1 PN 16 with material design W 20					
DN_d DN_s	D	b_f	k	d_{2f}	No. of holes
25	115	18	85	14	4
32	140	18	100	18	4
40	150	18	110	18	4
50	165	20	125	18	4
65	185	18	145	18	4
80	200	20	160	18	8
100	220	20	180	18	8
125	250	22	210	18	8

Flanges acc.to DIN EN 1092-1 PN 25 with material design W 23/W 26					
DN_d DN_s	D	b_f	k	d_{2f}	No. of holes
25	115	18	85	14	4
32	140	20	100	18	4
40	150	20	110	18	4
50	165	22	125	18	4
65	185	24	145	18	8
80	200	26	160	18	8
100	235	28	190	22	8
125	270	30	220	26	8

Flanges acc.to DIN EN 1092-2 PN 25 with material design W 22					
DN_d DN_s	D	b_f	k	d_{2f}	No. of holes
25	115	18	85	14	4
32	140	18	100	18	4
40	150	18	110	18	4
50	165	20	125	18	4
65	185	22	145	18	8
80	200	24	160	18	8
100	235	24	190	22	8
125	270	26	220	26	8

Motor rated output in kW

The motor dimensions as indicated are approximate values. Exact data depend on the motor make.

When using special motors, it must be noted that depending upon the enclosures, different performances are allocated to the individual sizes. The main dimensions are changes accordingly. In case of order, binding tables of motor dimensions must be transmitted to us.

	100 L	112 M	132 S	160 M	160 L	180 M	200 L
n = 1450 1/min	2,2 3	4	5,5	11	15	18,5	30
n = 2900 1/min	3	4	5,5 7,5	11 15	18,5	22	30 37

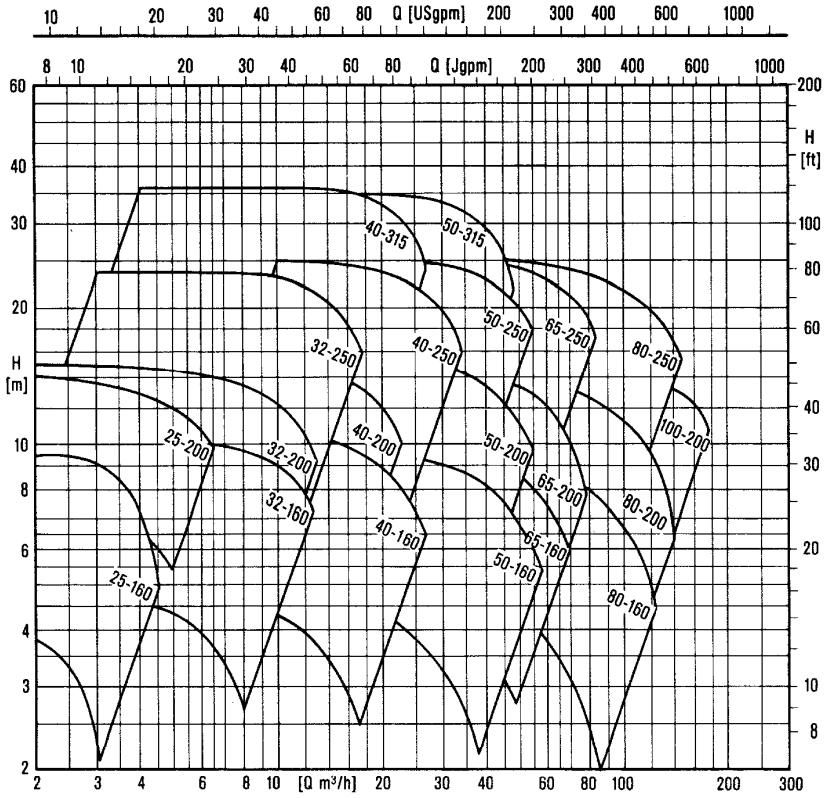
Pump size	Motor size	Base plate design	Support foot	Aggregate dimensions																														
				Pump dimensions								Foot dimensions													Motor dimensions					Extension dim. ④	
				Flanges																														
				DN_s	DN_d	a	f	b1	b2	h1	h2	b	c	c1	m1	m2	m3	n1	n2	n3	n4	s2	s	w	a1	d	h3	l1	l	x1	x2
25-160	100 L	•	①	40	25	80	300	128	128	132	160	50	15	-	100	70	-	240	190	-	-	-	M12	-	250	203	158	312	692	100	135
	112 M		①																							228	171	335	715		
25-200	100 L	•	①	40	25	80	300	132	132	160	180	50	15	-	100	70	-	240	190	-	-	-	M12	-	250	203	158	312	692	100	135
	112 M		③											4			45			160	110	14		250		228	171	335	715		
	132 S		③				321										58			190	140			270	300	266	196	375	776		
32-160	100 L	•	①	50	32	80	300	130	130	132	160	50	15	-	100	70	-	240	190	-	-	-	M12	-	250	203	158	312	692	100	135
	112 M		①											4												228	171	335	733		
	132 S	×	③				321										58			190	140	14		270	300	266	196	375	776		
	160 M		②				353							8								18		300	350	320	234	481	914		
32-200	100 L	•	①	50	32	80	300	130	135	160	180	50	15	-	100	70	-	240	190	-	-	-	M12	-	250	203	158	312	692	100	135
	112 M		③											4			45			160	110	14		250		228	171	353	733		
	132 S		③				321										58			190	140			270	300	266	196	375	776		
	160 M	×	②				353							8								18		300	350	320	234	481	914		
40-160	100 L	•	①	65	40	80	300	130	130	132	160	50	15	-	100	70	-	240	190	-	-	-	M12	-	250	203	158	312	692	100	135
	112 M		①																							228	171	335	715		
	132 S		③				321							4			58			190	140	14		270	300	266	196	375	776		
	160 M	×	③				353							8								18		300	350	320	234	481	914		
	160 L		③																							320	234	481	914		
40-200	100 L	•	①	65	40	100	300	130	140	160	180	50	15	-	100	70	-	265	212	-	-	-	M12	-	250	203	158	312	712	100	135
	112 M		③											4			45			160	110	14		250		228	171	335	735		
	132 S		③				321										58			190	140			270	300	266	196	375	796		
	160 M	×	③				353							8								18		300	350	320	234	481	934		
	160 L		③																							320	234	481	934		
	180 M		③																							375	275	610	1063		
	200 L		③																							415	310	665	1118		
50-160	100 L	•	③	80	50	100	300	130	130	160	180	50	15	4	100	70	45	265	212	160	110	14	M12	250	250	203	158	312	712	100	135
	112 M		③																							228	171	335	756		
	132 S		③				321										58			190	140			270	300	266	196	375	796		
	160 M	×	③				353							8								18		300	350	320	234	481	934		
	160 L		③																							320	234	481	934		
	180 M		③																							375	275	610	1063		
	200 L		③																							415	310	665	1118		
50-200	100 L	•	①	80	50	100	300	135	150	160	200	50	15	-	100	70	-	265	212	-	-	-	M12	-	250	203	158	312	712	100	135
	112 M		①																							228	171	335	756		
	132 S		③				321							4			58			190	140	14		270	300	266	196	375	796		
	160 M	×	③				353							8								18		300	350	320	234	481	934		
	160 L		②																							320	234	481	934		
	180 M		③																							375	275	610	1063		
	200 L		③																							415	310	665	1118		
65-160	100 L	•	①	100	65	100	300	130	155	160	200	65	15	-	125	95	-	280	212	-	-	-	M12	-	250	203	158	312	712	100	135
	112 M		①																							228	171	335	756		
	132 S		③				321							4			58			190	140	14		270	300	266	196	375	796		
	160 M	×	③				353							8								18		300	350	320	234	481	934		
	160 L		③																							320	234	481	934		
	180 M		③																							375	275	610	1063		
	200 L		③																							415	310	665	1118		
80-160	100 L	•	①	125	80	125	300	145	180	180	225	65	15	-	125	95	-	320	250	-	-	-	M12	-	250	203	158	312	712	140	135
	112 M		①																							228	171	335	756		
	132 S		③				321							4			58			190	140	14		270	300	266	196	375	796		
	160 M		③				353							8								18		300	350	320	234	481	934		
	160 L		③																							320	234	481	934		
	180 M		③																							375	275	610	1063		
	200 L	×	③																						400	415	310	665	1118		
32-250	132 S	•	①	50	32	100	400	170	170	180	225	65	15	-	125	95	-	320	250	-	-	-	M12	-	300	266	196	375	875	100	200
	160 M		③																							320	234	481	1016		
	160 L		③				435							8			58			190	140	18		375	350	320	234	481	1016		
	180 M		③																							375	275	610	1145		
	200 L	×	②																						380	400	415	310	665	1200		
40-250	132 S	•	③	65	40	100	400	170	170	180	225	65	15	4	125	95	58	320	250	190	140	14	M12	345	300	266	196	375	875	100	200
	160 M		③																							320	234	481	1016		
	160 L		③				435							8								18		375	350	320	234	481	1016		
	180 M		③																							375	275	610	1145		
	200 L	×	③																						380	400	415	310	665	1200		
50-250	132 S	•	③	80	50	125	400	170	170	180	225	65	15	4	125	95	58	320	250	190	140	14	M12	345	300	266	196	375	900	100	200
	160 M		③																							320	234	481	1041		
	160 L		③				435							8								18		375	350	320	234	481	1041		
	180 M		③																							375	275	610	1170		
	200 L	×	③																						380	400	415	310	665	1225		
65-200	132 S	•	③	100	65	100	400	170	170	180	225	65	15	4	125	95	58	320	250	190	140	14	M16	345	300	266	196	375	875	140	200
	160 M		③																							320	234	481	1016		
	160 L		③				435							8								18		375	350	320	234	481	1016		
	180 M		②																							375	275	610	1145		
	200 L	×	③																						380	400	415	310	665	1200		
80-200	132 S	•	①	125	80	125	400	170	190	180	250	65	18	-	125	95	-	345	280	-	-	-	M12	-	300	266	196	375	900	140	200
	160 M		③																							320	234	481	1006		
	160 L		③				435							8			58			190	140	18		375	350	320	234	481	1041		
	180 M		③																							375	275	610	1170		
	200 L	×	②																						380	400	415	310	665	1225		

① without support foot ② with support foot ③ available with or without support foot depending upon the speed (see selection program for magnetic drives)
④ x1 = dimension for dismantling the insert unit; x2 = disassembly space of drive stool for visual check at can and outer rotor

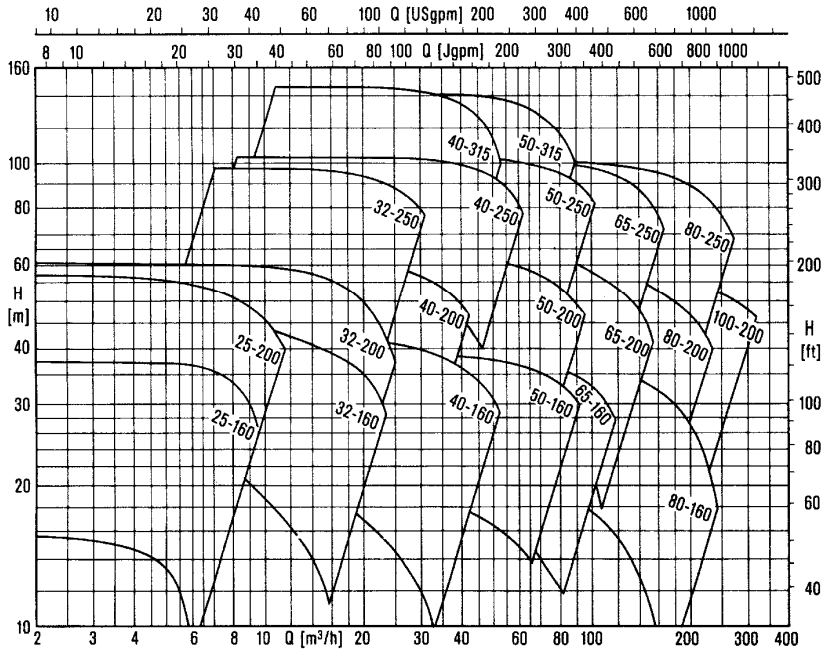
Other pump-motor combinations are documented in our selection program ALL2CAD.

Performance graphs

n = 1450 1/min



n = 2900 1/min



For exact performance data, please refer to the individual characteristics.

Successful in important branches

Decades of experience and branch-specific know-how ensure solutions that are practical and dependable. In addition to individual units with a motor or with a free shaft end, you can get complete systems and customer-specific cast parts from ALLWEILER GmbH. You are not just investing in machines with ALLWEILER GmbH. You are also profiting from decades of know-how about applications and processes in your branch.

You will find pumps and systems by ALLWEILER GmbH in the following sectors:

- **Marine and Offshore**
  Made of particularly corrosion-resistant, saltwater-proof materials and in accordance with specific standards (shock testing, national marine, international classifications etc.).

- **Power Generation**
  Block and twin units for fuel and water injection in gas and steam turbines.
  For fuel supply, injection and lubricating oil supply in power plants.

- **Water and Wastewater**
  Pumps for water treatment (dry substance up to 45 %), macerators, which make it possible to pump liquids that are high in fibre and solids.

- **Bioenergy**
  Materials resistant to aggressive intermediate and final products. Pumps for every step in the process.

- **Process Engineering and Chemical Industry (ATEX-conformity)**
  Shaft bearing, shaft seal and material designs in accordance with the chemical characteristics of the pumped liquid. Magnetic coupling for hermetically sealed pumps.

- **Oil and Gas**
  Pumps with a wide viscosity range, high pressure and large capacity.

- **Building Industry**
  Special units for oil furnace and lift systems. Oil submersible pumps for all types of hydraulic machines.

- **Food and Pharmaceutical**
  Stainless steel pumps with CIP and SIP design, EHEDG and FDA certified. Especially for the careful pumping and dosing of even sticky, pasty and solids-rich liquids.

- **Machine Tool**
  Designed for large capacity or a high discharge pressure; resistant to contaminants and foreign matters. Especially for cooling lubricant supply.

- **Pulp and Paper**
  Pumps with extremely high availability (24 hours; 365 days) and many sizes, starting with small dosing pumps and ranging to large kaolin feeding pumps.

- **Heat Transfer**
  In supply circuits, circulating systems and heating circuits for pumping of hot water and heat transfer oil up to 207 °C and 450 °C.

ALLWEILER delivery range

Centrifugal Pumps

▶**Features**
Pump capacities acc. to DIN EN 733 or DIN EN 22 858. Additional sizes enlarge the EN-performance range. Series construction acc. to the modular system. Single-stage or multistage pumps in block- or inline-design; pumps with magnetic coupling, pumps for heat transfer oil and hot water.

▶**Pumped liquids**
Neutral or aggressive, pure, with solids content or contaminated, cold or hot, toxic or harmful to the environment.

▶**Performance data**
Q up to 2,400 m³/h, H up to 250 m

Propeller Pumps

▶**Features**
For large flows at relatively small delivery heads. Horizontal, vertical, submerged and elbow casing pumps.

▶**Pumped liquids**
Neutral or aggressive, pure or contaminated, cold or hot.

▶**Performance data**
Q up to 35,000 m³/h, H up to 20 m

Self-Priming Side Channel Pumps

▶**Features**
Self-priming side channel segmental-type pumps.

▶**Pumped liquids**
Neutral or aggressive, pure or contaminated, cold or hot, toxic, harmful to the environment.

▶**Performance data**
Q up to 20 m³/h, H up to 350 m

Three-Screw Pumps

▶**Features**
Three-screw, self-priming, very good efficiencies, very low noise level. The pumping process is continuous, nearly without pulsation and without turbulences. Self-priming, for horizontal and vertical installation, submerged pumps and pumps with magnetic drive.

▶**Pumped liquids**
Oils or other lubricating, not lubricating or sparely lubricating liquids.

▶**Performance data**
Q up to 7,500 l/min, p_d up to 280 bar

Two-Screw Pumps

▶**Features**
Two-screw, double-entry, self-priming, high suction power due to low NPSH-values, adapted for dry running.

▶**Pumped liquids**
Oils or other lubricating, not lubricating or sparely lubricating liquids.

▶**Performance data**
Q up to 1,300 m³/h, p_d up to 40 bar

Progressing Cavity Pumps

▶**Features**
Single-stage or multistage, self-priming. The pumping is continuous, nearly without pulsation and without turbulences, crushing or demixing.

▶**Pumped liquids**
For pumping and dosing liquids of low to high viscosity; pasty, neutral or aggressive, pure or abrasive, gaseous or tending to froth, also with fibrous and solids content.

▶**Performance data**
Q up to 7,500 l/min, p_d up to 36 bar

Rotary Lobe Pumps

▶**Features**
Hermetically sealed pumps with no welded parts, sealing systems adapted to the liquid, sterile cleaning possible.

▶**Pumped liquids**
For pumping and dosing liquids of low to high viscosity; pasty, neutral or aggressive, pure or abrasive, especially in the food and pharma industry.

▶**Performance data**
Q up to 1,666 l/min, p_d up to 20 bar

Peristaltic Pumps

▶**Features**
Dry self-priming, without seals and valves.

▶**Pumped liquids**
For pumping and dosing liquids of low to high viscosity; pasty, neutral or aggressive, pure or abrasive, gaseous or tending to froth, also with fibrous and solids content.

▶**Performance data**
Q up to 60 m³/h, p_d up to 16 bar

Macerators

▶**Features**
Impeller with exchangeable, highly wear resistant milling cutters.

▶**Pumped liquids**
For milling of fibres and solids (wood, textils, glass etc.) that are contained in the liquids to be pumped and making them pumpable.

▶**Performance data**
Q up to 160 m³/h, p_d up to 10 bar

Subject to technical alterations.

ALLWEILER
ALL FLUIDS. NO LIMITS.

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